

Inverse boundary-value problems of cauchy type for harmonic functions

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Abstract

We apply two methods for solving the inverse boundary-value problem (the so-called problem (A)) in the Cauchy statement for an analytic function and an unknown curve Γ . We obtain criteria for Γ to be the unit circle. We apply the proposed methods for solving a modified Hadamard example and generalize the obtained results for the case of doubly connected domains. © Allerton Press, Inc., 2012.

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Keywords

Boundary-value problems for analytic functions, Cauchy problem, Harmonic functions, Inverse boundary-value problems